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EXAMINER	
JONES, HEATHER RAE	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/083,676	COVELL ET AL.	
	Examiner	Art Unit	
	Heather R. Jones	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,17,19,20 and 22-52* is/are rejected.

7)☒ Claim(s) *10-16,18,21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/28/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9, 17, 19, 20, 22-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Dimitrova et al. (U.S. Patent 6,100,941).

Regarding claim **1**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a plurality of blank frame detectors, each blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames (col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **2**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 1 including that the plurality of blank frame detectors comprise first and second blank frame detectors (Fig. 5); the first blank frame detector is adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame of a first type; and the second blank frame detector is adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame of a second type, the second type being different from the first type (Figs. 2 and 5; col. 5, lines 47-65).

Regarding claims **3-6**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 1 including that at least one of the plurality of blank frame detectors is adapted to detect frames of visual recording data that represent an image that is all or nearly all one color, all or nearly blue or purple, all or nearly all silver, or all or nearly all black (Fig. 6A; col. 2, line 65 – col. 3, line 9).

Regarding claim **7**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 1 as well as the apparatus further comprising means for evaluating a determination that a frame of visual recording data is a blank frame to either confirm or reject the determination (Figs. 2 and 5; col. 5, line 66 – col. 6, line 10).

Regarding claim **8**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame

detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame of a first type or of a second type that is different from the first type (Figs. 2 and 5; col. 5, lines 47-65); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames (col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **9**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame representing an image that is all or nearly all one color (Figs. 2 and 5; col. 5, lines 47-65), wherein the blank frame detector further comprises: means for determining if, for each color component, the numerical value of a specified number of the pixels of the frame is within a specified magnitude of the average numerical value of that color component for all of the pixels of the frame; and means for determining if the average numerical value of each color component for all of the pixels of the frame is within a specified range and/or has a specified relationship with the average numerical value of one or more other color components, wherein: if, for each color component, the numerical value of the

specified number of the pixels of the frame is within the specified magnitude of the average numerical value of that color component for all of the pixels of the frame, and if the average numerical value of each color component for all of the pixels of the frame is within a specified range and/or has a specified relationship with the average numerical value of one or more other color components, then the frame is a blank frame (Fig. 6A); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames (col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **17**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65), wherein the blank frame detector further comprises: means for determining if a specified maximum variation from pure gray at each pixel is less than a specified magnitude; means for determining if the average numerical value of each color component for all of the pixels of the frame is within a specified range and/or has a specified relationship with the average numerical value of one or more other color components; and means for

determining if the vertical and horizontal correlation coefficients are within corresponding specified ranges and/or have a specified relationship with one another, wherein: if the specified maximum variation from pure gray at each pixel is less than a specified magnitude, the average numerical value of each color component for all of the pixels of the frame is within a specified range and/or has a specified relationship with the average numerical value of one or more other color components, and the vertical and horizontal correlation coefficients are within corresponding specified ranges and/or have a specified relationship with one another, then the frame is a blank frame (Figs. 6A and 6B); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames (col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **19**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a snow-static frame (Figs. 2 and 5; col. 5, lines 47-65); a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of

visual recording data is a blank segment comprising a plurality of blank frames (col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment); and means for evaluating, when a frame is determined to be a snow-static frame, the temporal correlation coefficient over a specified window of frames of visual recording data that includes the snow-static frame to either confirm or reject the determination that the frame is a snow static frame (Fig. 5 – step 553).

Regarding claim **20,** Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 19 including that the means for evaluating the temporal correlation coefficient further comprises: means for determining if all of the frames in the window are snow-static frames; means for determining if at least one of the frames in the window has a temporal correlation coefficient with greater than a first specified magnitude; and means for determining if at least one of the frames in the window has a temporal correlation coefficient with less than a second specified magnitude (col. 9, line 42 – col. 13, line 42).

Regarding claim **22**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); and a plurality of blank segment

detectors, each blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames (col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **23**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 22 including that the plurality of blank segment detectors comprise first and second blank segment detectors; the first blank segment detector is adapted to detect blank segments including blank frames of a first type; and the second blank segment detector is adapted to detect blank segments including blank frames of a second type, the second type being different from the first type (Figs. 2 and 5; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **24**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of

frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames including one or more blank frames of a first type and one or more blank frames a second type that is different from the first type (Figs. 2 and 5; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **25**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 24 including that the blank segment detector is adapted to detect a first type of blank segment including blank frames of a first type, or a second type of blank segment including blank frames of a second type that is different from the first type of blank frames (Figs. 2 and 5; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **26**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of

visual recording data is a blank segment comprising a plurality of blank frames that represent an image that is all or nearly all one color (Figs. 2, 5, and 6A; col. 5; lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claims **27-29**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 26 wherein the blank segment detector is adapted to detect blank segments including blank frames that represent an image that is all or nearly all blue or purple, all or nearly all silver, or all or nearly all black (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **30**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 26 including that the blank segment detector further comprises means for determining if there are a specified number of frames in a sequence of frames that have been determined to be blank frames of the same color, wherein if there are a specified number of frames in the sequence of frames that have been determined to be blank frames of the same color, then the segment is a blank segment (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **31**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 26 and 30 including that the specified number of frames is 95% of the frames in the sequence of frames after the first 6 frames in the sequence of frames (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **32**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 26 and 30 including that the blank segment detector further comprises means for determining if the blank frames of the same~ color in the sequence of frames differ in color by no more than a specified amount, wherein if there are a specified number of frames in the sequence of frames that have been determined to be blank frames of the same color and the blank frames of the same color in the sequence of frames differ in color by no more than a specified amount, then the segment is a blank segment (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **33**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 26, 30, and 32 including that the specified amount is a variance of the average color of the frames of the same color of less than 10 (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col.

3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **34**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a snow-static segment comprising a plurality of ,blank frames that represent an image that is all or nearly all snow-static (Figs. 2, 5 – step "553", and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **35**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 26 including that the blank segment detector further comprises means for determining if there are a specified number of frames in a sequence of frames that have been determined to be snow-static frames, wherein if there are a specified number of frames in the sequence of frames that have been determined to be snow-static frames, then the segment is a blank segment (Figs. 2, 5 – step "553", and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30

frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **36**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 26 and 30 including that the specified number of frames is 95% of the frames in the sequence of frames after the first 6 frames in the sequence of frames (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **37**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 36 including that the blank segment detector further comprises: means for determining if a specified number of frames in the sequence of frames have been identified either as black screen frames or snow-static frames; means for determining if the black screen frames in the sequence of frames differ in color by no more than a specified amount, wherein: if there are a specified number of frames in a sequence of frames that have been determined to be snow-static frames, a specified number of frames in the sequence of frames have been identified either as black screen frames or snow-static frames, and the black screen frames in the sequence of frames differ in color by no more than a specified amount, then the segment is a blank segment (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col.

13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **38**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 36 and 37 including that the specified number of snow-static frames in the sequence of frames is 5; the specified number of frames is 95% of the frames in the sequence of frames after the first 6 frames of the sequence of frames; and the specified amount is a variance of the average color of the black frames of less than 10 (Figs. 2, 5, and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment).

Regarding claim **39**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); and a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames, wherein: the blank frame and blank segment determinations are made for successive frames of visual recording data as the frames of visual recording data are acquired or as the frames of visual recording data are being processed for

another purpose (Figs. 2, 5 – step "553", and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment – commercial detection).

Regarding claim **40**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 39 as well as further comprising means for communicating a categorization of a current segment to another process operating on the set of visual recording data (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **41**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 39 and 40 including that the set of visual recording data is initially in an analog form and the other process is a digitization process (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **42**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 39-41 including that the means for communicating a current segment categorization further comprises means for communicating the duration of a current blank segment to the digitization process; and the digitization process can be terminated if the duration of the current blank segment exceeds a specified duration (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **43**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 39 and 40 including that the means

for communicating a current segment categorization further comprises: means for identifying the beginning of a first content segment in the set of visual recording data; and means for communicating the identification of the beginning of the first content segment to the other process operating on the set of visual recording data (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **44**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 39, 40, and 43 including that the other process is a process for recording the set of visual recording data onto a data storage medium; and visual recording data is not recorded onto the data storage medium until the identification of the beginning of the first content segment is communicated to the recording process (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **45**, Dimitrova et al. discloses an apparatus for identifying a blank segment in a set of visual recording data, comprising: a blank frame detector, the blank frame detector adapted to evaluate a frame of visual recording data to determine whether the frame of visual recording data is a blank frame (Figs. 2 and 5; col. 5, lines 47-65); a blank segment detector, the blank segment detector adapted to evaluate a characteristic of a plurality of frames of visual recording data to determine whether the plurality of frames of visual recording data is a blank segment comprising a plurality of blank frames; and means for using the detection of one or more blank segments to identify one or more segment boundaries in the set of visual recording data, each segment

boundary delineating a' transition from a segment of one type to a segment of another type (Figs. 2, 5 – step "553", and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment – commercial detection).

Regarding claim **46**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 45 as well as the apparatus further comprising: means for identifying a segment boundary at the beginning of a blank segment; and means for marking the identified segment boundary to cause the blank segment following the identified segment boundary to be excluded from subsequent interaction with the set of visual recording data (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **47**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 45 and 46 including that the set of visual recording data is used to generate a display of the corresponding recorded visual content, a display of the recorded visual content corresponding to the marked segment not being generate (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **48**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claims 45 and 46 including that the set of visual recording data is processed in a specified manner, the visual recording

data in the marked segment not being processed (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **49**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 45 as well as the apparatus further comprising: means for identifying a segment boundary at the beginning of a blank segment; and means for deleting the visual recording data in the blank segment from the set of visual recording data (col. 15, line 26 – col. 16, line 46 - commercial detection).

Regarding claim **50**, Dimitrova et al. discloses all the limitations as previously discussed with respect to claim 45 as well as the apparatus further comprising: means for determining the duration of a blank segment; and means for identifying the end of recorded visual content in the set of visual recording data as the beginning of a blank segment having greater than a specified duration (Figs. 2, 5 – step "553", and 6A; col. 5, lines 47-65; col. 2, line 65 – col. 3, line 9; col. 13, lines 51-67 – detecting frames in real time at 30 frames/sec, therefore they are detecting 30 frames/sec corresponding to a segment – commercial detection).

Regarding claim **51**, this is a method claim corresponding to the apparatus clam 9. Therefore, claim 51 is analyzed and rejected as previously discussed with respect to claim 9.

Regarding claim **52**, this is a computer readable medium claim corresponding to the apparatus clam 9. Therefore, claim 52 is analyzed and rejected as previously discussed with respect to claim 9.

Allowable Subject Matter

3. Claims 10-16, 18, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to teach or fairly suggest an apparatus for identifying a blank segment in a set of visual recording data:

a. Wherein the numerical value of each color component of each pixel can vary between 0 and 255 inclusive; the specified number of pixels is greater than or equal to 80% of the pixels; and the specified magnitude is 8 (claim 10, claims 11-16 all depend from claim 10).

b. Wherein each pixel of the frame of visual recording data is represented by a red color component, a green color component and a blue color component, each color component having a value between 0 and 255 inclusive; the maximum variation from pure gray of each color component at each pixel is less than 15; the specified range for the green color component is between 5 and 45; the absolute value of the difference between the magnitude of the red color component and the magnitude of the green color component is less than 5; the

absolute value of the difference between the magnitude of the green color component and the magnitude of the blue color component is less than 5; and the absolute value of the difference between the magnitude of the red color component and the magnitude of the blue color component is less than 5; the vertical correlation coefficient is less than 0.41; the horizontal correlation coefficient is less than 0.85; and the horizontal correlation coefficient is greater than twice the vertical correlation coefficient (claim 18).

c. Wherein the first specified magnitude is 0.98; and the second specified magnitude is 0.02 (claim 21).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R. Jones whose telephone number is 571-272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
June 25, 2007

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600